

OIEP

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/832,658

DATE: 10/16/2001
 TIME: 15:01:47

Input Set : A:\A065us.txt
 Output Set : N:\CRF3\10162001\I832658.raw

4 <110> APPLICANT: BIOGEN, INC.
 5 Pepinsky, Blake
 6 Runkel, Laura
 7 Brickelmaier, Margot
 8 Whitty, Adrian
 9 Hochman, Paula
 11 <120> TITLE OF INVENTION: Polymer Conjugates of Interferon Beta-la
 12 and Uses
 14 <130> FILE REFERENCE: A065PCT
 C--> 16 <140> CURRENT APPLICATION NUMBER: US/09/832,658
 C--> 17 <141> CURRENT FILING DATE: 2001-04-11
 19 <150> PRIOR APPLICATION NUMBER: 60/104,572
 20 <151> PRIOR FILING DATE: 1998-10-16
 22 <150> PRIOR APPLICATION NUMBER: 60/120,161
 23 <151> PRIOR FILING DATE: 1999-02-16
 25 <160> NUMBER OF SEQ ID NOS: 29
 27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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 30 <211> LENGTH: 549
 31 <212> TYPE: DNA
 32 <213> ORGANISM: murine
 34 <400> SEQUENCE: 1
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 36 aacttgcttg gatttctaca aagaagcagc aattttcagt gtcagaagct cctgtggcaa 120
 37 ttgaatggga gcttgaata ctgctcaag gacaggatga actttgacat cctgtaggag 180
 38 attaagcagc tgcagcagtt ccagaaggag gacgccgat tgaccatcta tgagatgctc 240
 39 cagacacatc ttgctatttt cagacaagat tcatctagca ctggctggaa tgagactatt 300
 40 gttgagaacc tcttggtcta tgtctatcat cagataaacc atctgaagac agtctctggaa 360
 41 gaaaaacttg agaaaaga ttaccagg gaaaaactca tgagcagttc gcacttgaaa 420
 42 agatattatg ggaggattct gcattaccctg aaggccaagg agtacagtca ctgtgcctgg 480
 43 accatagtca gattggaaat cctaaggaa ctttacttca ttaacagact tacaggttac 540
 44 ctccgaac
 46 <210> SEQ ID NO: 2
 47 <211> LENGTH: 183
 48 <212> TYPE: PRT
 49 <213> ORGANISM: murine
 51 <400> SEQUENCE: 2
 52 Ser Gly Gly His His His His His Ser Ser Gly Asp Asp Asp Asp
 53 1 5 10 15
 54 Lys Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe
 55 20 25 30
 56 Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys
 57 35 40 45
 58 Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu
 59 50 55 60
 60 Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu
 61 65 70 75 80

ENTERED

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62 Gln Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp
63      85      90      95
64 Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile
65      100      105      110
66 Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe
67      115      120      125
68 Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly
69      130      135      140
70 Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp
71 145      150      155      160
72 Thr Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Phe Ile Asn Arg
73      165      170      175
74 Leu Thr Gly Tyr Leu Arg Asn
75      180
77 <210> SEQ ID NO: 3
78 <211> LENGTH: 60
79 <212> TYPE: DNA
80 <213> ORGANISM: human
82 <400> SEQUENCE: 3
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86 <211> LENGTH: 39
87 <212> TYPE: DNA
88 <213> ORGANISM: human
90 <400> SEQUENCE: 4
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93 <210> SEQ ID NO: 5
94 <211> LENGTH: 35
95 <212> TYPE: DNA
96 <213> ORGANISM: human
98 <400> SEQUENCE: 5
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101 <210> SEQ ID NO: 6
102 <211> LENGTH: 35
103 <212> TYPE: DNA
104 <213> ORGANISM: human
106 <400> SEQUENCE: 6
107 ccggagctat gatgatgatg atgatggccc ccgga
109 <210> SEQ ID NO: 7
110 <211> LENGTH: 87
111 <212> TYPE: DNA
112 <213> ORGANISM: human
114 <400> SEQUENCE: 7
115 ccggagacga tgatgacaag atggtctacg ccgctcttgg agccctacaa gcttctagca
116 attttcagtg tcagaagctc ctgtggc
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119 <211> LENGTH: 60
120 <212> TYPE: DNA
121 <213> ORGANISM: human

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124 gatctagcaaa tgcgtgcctgt gctgccctcc tggtgcctt gaatgggagg cttgaatact 60
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127 <211> LENGTH: 52
128 <212> TYPE: DNA
129 <213> ORGANISM: human
131 <400> SEQUENCE: 9
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134 <210> SEQ ID NO: 10
135 <211> LENGTH: 76
136 <212> TYPE: DNA
137 <213> ORGANISM: human
139 <400> SEQUENCE: 10
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141 agattaagca gctgca 76
143 <210> SEQ ID NO: 11
144 <211> LENGTH: 76
145 <212> TYPE: DNA
146 <213> ORGANISM: human
148 <400> SEQUENCE: 11
149 aattgaatgg gaggcttgaa tactgcctca aggacagggc tgcatttgct atccctgcag 60
150 agattaagca gctgca 76
152 <210> SEQ ID NO: 12
153 <211> LENGTH: 51
154 <212> TYPE: DNA
155 <213> ORGANISM: human
157 <400> SEQUENCE: 12
158 aattgaatgg gaggcttgaa tactgcctca aggacaggat gaactttgac a 51
160 <210> SEQ ID NO: 13
161 <211> LENGTH: 43
162 <212> TYPE: DNA
163 <213> ORGANISM: human
165 <400> SEQUENCE: 13
166 tccttgagga gattgctgca gctgcagctt tcgctgcagc tga 43
168 <210> SEQ ID NO: 14
169 <211> LENGTH: 78
170 <212> TYPE: DNA
171 <213> ORGANISM: human
173 <400> SEQUENCE: 14
174 cgcgcgcttg accatctatg agatgctgcg taacatcgct agcattttca gacaagattc 60
175 atctagcact ggctggaa 78
177 <210> SEQ ID NO: 15
178 <211> LENGTH: 78
179 <212> TYPE: DNA
180 <213> ORGANISM: human
182 <400> SEQUENCE: 15
183 cgcgcgcttg accatctatg agatgctcca gaacatcttt gctattttcg ctgcagcttc 60
184 atctagcact ggctggaa 78
186 <210> SEQ ID NO: 16

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Input Set : A:\A065us.txt
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187 <211> LENGTH: 72
188 <212> TYPE: DNA
189 <213> ORGANISM: human
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192 ggaatgcttc aattgttgc tcaactctga gcaatgtcta tcatcagata aaccatctga 60
193 agacagttct ag 72
195 <210> SEQ ID NO: 17
196 <211> LENGTH: 72
197 <212> TYPE: DNA
198 <213> ORGANISM: human
200 <400> SEQUENCE: 17
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202 ctgcagttct ag 72
204 <210> SEQ ID NO: 18
205 <211> LENGTH: 44
206 <212> TYPE: DNA
207 <213> ORGANISM: human
209 <400> SEQUENCE: 18
210 ctagctgcaa aactggctgc agctgatttc accaggggaa aact 44
212 <210> SEQ ID NO: 19
213 <211> LENGTH: 69
214 <212> TYPE: DNA
215 <213> ORGANISM: human
217 <400> SEQUENCE: 19
218 ctagaagaaa aactggagaa agaagcagct accgctggaa aagcaatgag cgcgctgcac 60
219 ctgaaaaga 69
221 <210> SEQ ID NO: 20
222 <211> LENGTH: 51
223 <212> TYPE: DNA
224 <213> ORGANISM: human
226 <400> SEQUENCE: 20
227 tattatggga ggattctgca ttacctgaag gccaaaggagt actcacactg t 51
229 <210> SEQ ID NO: 21
230 <211> LENGTH: 163
231 <212> TYPE: DNA
232 <213> ORGANISM: human
234 <400> SEQUENCE: 21
235 catgagcagt ctgcacctga aaagatatta tggggcaatt gctgcatacc tggcagccaa 60
236 ggagtactca cactgtcatg agcagtctgc acctgaaaaa atattattggg aggattctgc 120
237 attacctgaa ggccctgca tactcaact gtgcctggac gat 163
239 <210> SEQ ID NO: 22
240 <211> LENGTH: 87
241 <212> TYPE: DNA
242 <213> ORGANISM: human
244 <400> SEQUENCE: 22
245 catgagcagt ctgcacctga aaagatatta tggggaggatt ctgcattacc tgaaggcaaa 60
246 ggagtacgct gcatgtgctt ggacgat 87
248 <210> SEQ ID NO: 23
249 <211> LENGTH: 50

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Input Set : A:\A065us.txt
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250 <212> TYPE: DNA
 251 <213> ORGANISM: human
 253 <400> SEQUENCE: 23
 254 cgtcagagct gaaatcctag caaactttgc attcattgca agacttacag
 256 <210> SEQ ID NO: 24
 257 <211> LENGTH: 166
 258 <212> TYPE: PRT
 259 <213> ORGANISM: human
 261 <400> SEQUENCE: 24
 262 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 263 1 5 10 15
 264 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 265 20 25 30
 266 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 267 35 40 45
 268 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Gln
 269 50 55 60
 270 Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 271 65 70 75 80
 272 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 273 85 90 95
 274 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Asp Phe Thr
 275 100 105 110
 276 Arg Gly Ala Leu Met Ser Ser Leu His Leu Lys Arg Tyr Tyr Gly Arg
 277 115 120 125
 278 Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser His Cys Ala Trp Thr
 279 130 135 140
 280 Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr Arg Ile Asn Arg Leu
 281 145 150 155 160
 282 Thr Gly Tyr Leu Arg Asn
 283 165
 285 <210> SEQ ID NO: 25
 286 <211> LENGTH: 166
 287 <212> TYPE: PRT
 288 <213> ORGANISM: human
 290 <400> SEQUENCE: 25
 291 Met Ala Tyr Ala Ala Leu Gly Ala Leu Gln Ala Ser Ser Asn Phe Gln
 292 1 5 10 15
 293 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu
 294 20 25 30
 295 Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu Ile Lys Gln Leu Gln
 296 35 40 45
 297 Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile Tyr Glu Met Leu Ala
 298 50 55 60
 299 Asn Ile Ala Ser Ile Phe Arg Gln Asp Ser Ser Ser Thr Gly Trp Asn
 300 65 70 75 80
 301 Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val Tyr His Gln Ile Asn
 302 85 90 95
 303 His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu Lys Glu Ala Ala Thr

50

VERIFICATION SUMMARY

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Input Set : A:\A065us.txt

Output Set: N:\CRF3\10162001\I832658.raw

L:16 M:270 C: Current Application Number differs, Replaced Current Application Number
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date